

# PATENT SPECIFICATION



Application Date: April 8, 1924. No. 8907 / 24.

232,765

Complete Left: Jan. 8, 1925.

Complete Accepted: April 30, 1925.

## PROVISIONAL SPECIFICATION.

### Improvements relating to Valves.

We, ROBERT ADDY HOPKINSON, a British subject, and J. HOPKINSON & COMPANY LIMITED, a British company, both of Britannia Works, Huddersfield, in the County of York, do hereby declare the nature of this invention to be as follows:—

This invention has for its object to provide an improved construction of valve seat which facilitates the making of a fluid tight joint between the seat and the valve casing.

In accordance with our invention, the periphery of the valve seat has tapered

and screw threaded portions, the tapered or conical part being either at the top or at the bottom of the peripheral edge of the seating ring. The part of the valve body or casing into which the said seating ring screws has corresponding threaded and tapered or conical portions.

The threaded portions of the seating ring and valve bridge need not be a tight fit for when the tapered portions engage, the seating ring is brought to a central position and a good fluid tight joint made.

Dated this 12th day of March, 1924.

MARKS & CLERK.

## COMPLETE SPECIFICATION.

### Improvements relating to Valves.

We, ROBERT ADDY HOPKINSON, a British subject, and J. HOPKINSON & COMPANY, LIMITED, a British company, both of Britannia Works, Huddersfield, in the County of York, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention has for its object to provide an improved construction of valve seat which facilitates the making of a fluid tight joint between the seat and the valve casing, the said seat being of the type wherein the periphery has tapered and screw threaded portions, the tapered or conical part being either at the top or at the bottom of the peripheral edge of the seating ring. The part of the valve body or casing into which the said seating ring screws has corresponding threaded and tapered or conical portions.

In accordance with our invention the threaded portions of the seating ring and

valve body are made a slack fit so that when the tapered portions engage, the seating ring is brought to a central position and a good fluid tight joint produced.

Referring to the accompanying sheet of explanatory drawings:—

Figure 1 is a sectional elevation showing a valve seat made in accordance with our invention, having the aforesaid tapered or conical part at the end adjacent the valve seating surface.

Figure 2 is a similar view of a valve seat with the said tapered or conical part at the end remote from the valve seating surface.

The same reference letters in the two views indicate the same or similar parts.

In the example shown at Figure 1, the tapered or conical surface *a* of the valve seat is adjacent the upper or seating surface *b* for the valve *c* indicated by dotted lines. The screw threaded portion *d* is adjacent to or extends from the lower end of the valve seat. For con-

venience of manufacture the valve seat is grooved exteriorly between the screw threaded and the tapered or conical portions as illustrated. The threaded portion *d* of the seat is a slack lateral fit in the correspondingly threaded portion of the valve body.

In the example shown at Figure 2 the tapered or conical surface or portion *a* is at the end of the valve seat remote from the seating surface *b*, whilst the screw threaded portion *d* is at the centre or midway between the end portions as illustrated.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that we are aware of the Specifications Nos. 15,637 of 1899 and 145,148 but what we claim is:—

Improved valve seats of the type aforesaid, characterised by the making of the threaded portions of the seating ring and valve body a slack fit so that when the tapered portions engage, the ring is brought to a central position and a good fluid tight joint produced, substantially as described and as illustrated.

Dated this 2nd day of January, 1925. 30

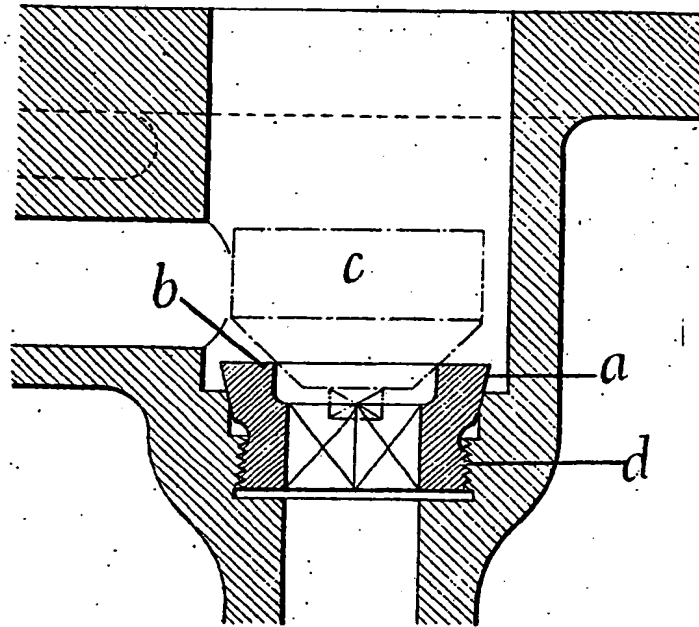
MARKS & CLERK.

Reference has been directed in pursuance of Section 7, Sub-section 4, of the Patents and Designs Acts, 1907 and 1919 to Specifications No. 145,148 and No. 34,156,37 of 1899.

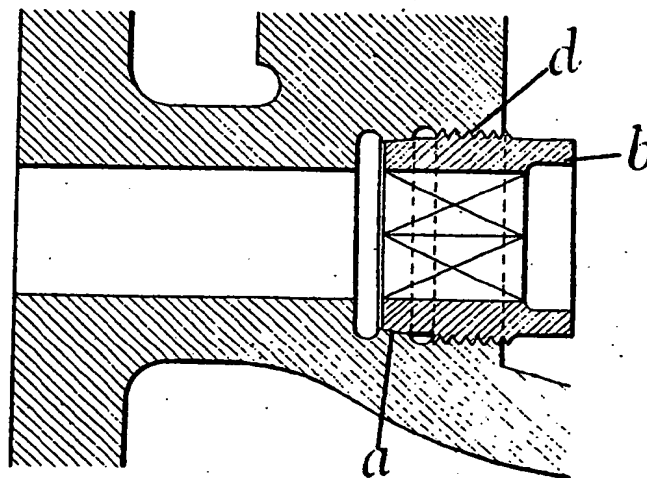
This reference is inserted as the result of a Provisional Report under Rule 29 of the Patents Rules 1920.

Redhill: Printed for His Majesty's Stationery Office, by Love & Malcomson, Ltd.—1925.

*[This Drawing is a reproduction of the Original on a reduced scale]*



**Fig.1**



**Fig.2**

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